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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/084,888	03/01/2002	Masao Oketani	46277	8184

20736 7590 01/29/2004  
MANELLI DENISON & SELTER  
2000 M STREET NW SUITE 700  
WASHINGTON, DC 20036-3307

EXAMINER

SHEWAREGED, BETELHEM

ART UNIT	PAPER NUMBER
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1774

DATE MAILED: 01/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/084,888

Applicant(s)

OKETANI ET AL. *OK*

Examiner

Betelhem Shewareged

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11/13/2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7 and 9-22 is/are pending in the application.
- 4a) Of the above claim(s) 1-6 and 13-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7,9-12 and 17-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. Applicant's response filed on 11/13/2003 has been fully considered. The 35 U.S.C. 102 rejection has been withdrawn in view of Applicant's amendment.
2. Claims 7, is amended, claim 8 is cancelled, claims 21 and 22 are added, and thus claims 1-7 and 9-22 are pending (NOTE: Claims 1-6 and 13-16 are still withdrawn from consideration as non-elected invention).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7, 9-12 and 17-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakaki et al. (US 5,591,294) in view of Kasahara et al. (US 6,165,606).

Sakaki discloses a method of manufacturing and storing a recording sheet (abstract). The recording sheet comprises a base member and a covering layer on at least one side of the base member, wherein the covering layer comprises binders, fillers such as silica, and additives such as pH adjuster (col.6, lines 22-46). The fillers may be ultra fine particles (col. 6, line 51). The recording sheet is enclosed in a packaging bag being composed of aluminum-deposited film, which is laminated on one side with

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polyethylene terephthalate, and the other side is laminated with polyethylene (col. 10, line 63 thru col. 11, line 5). The packaging bag is equivalent to the claimed water-resistant protective sheet. Ink jet recording is carried out using ink jet recording method in order to form a recording sheet having printed matter thereof (col. 8, line 49 and col. 9, line 3). Sakaki fails to teach that the silica in the covering layer is fumed silica, and that the pH value of the covering layer is ranging from 3 to 6.

Kasahara teaches an ink jet recording sheet having a recording layer comprising a binder, fine inorganic particles (abstract). The inorganic particles are silica synthesized through a gas phase method (col. 7, line 47). Kasahara further teaches limiting the pH value of an ink receiving layer to 2-8 (col. 3, line 25).

Sakaki and Kasahara are analogous art because they are from the same field of endeavor that is the ink jet recoding art. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the fumed silica of Kasahara with the invention of Sakaki in order to enhance the glossiness, film strength and porosity of the layer (**see** col. 7, line 59 of Kasahara). And further more, it would have been obvious to one of ordinary skill in the art to adjust the pH value of the covering layer to 2-8 in order to improve the water resistance and moisture resistance of the layer (**see** col. 3, line 5 of Kasahara).

### ***Response to Arguments***

5. Applicant's argument is based on that the pH value disclosed in Kasahara is not part of the invention of Kasahara, it is a description of a prior art JP 63-224988 A, and

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the reference of Kasahara does not teach packaged recording paper. This argument is not persuasive because even though Kasahara does not discover the pH value of 2-8, the reference of Kasahara teaches that a pH of 2-8 is known before the invention of Kasahara. Furthermore, the Examiner combined the invention of Sakaki and Kasahara to teach the pH value of the recording material not the packaging material.

Applicant further argued that an ink jet recording material having an ink receptive layer with a pH value of 3-6 provides excellent results, and no good results can be obtained using ink receptive layer having a pH value of 2.5 or 6.5. This argument is not persuasive because the information disclosed in page 25, lines 18-25 of the specification contradicts with the above argument (see page 8, 3<sup>rd</sup> paragraph of Amendment filed on 11/13/2003). In page 25, lines 22 and 25 of the specification, it is disclosed that good results (in terms of water resistance and quality of coated surface) can be obtained at a pH value of 2.5 or 6.5. The Examiner may have misunderstood the information in page 25, line 18-25 of the specification; therefore, the Examiner kindly request further elaboration.

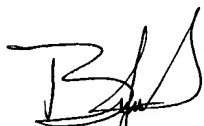
For the above reasons claims 7, 9-12 and 17-20 stand rejected, and claims 21 and 22 are added in the rejection.

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***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Betelhem Shewareged whose telephone number is 571-272-1529. The examiner can normally be reached on Mon.-Thur. 7:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H Kelly can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.



Betelhem Shewareged  
January 24, 2004.